


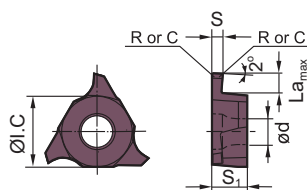


**Parting inserts**

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

QC\*\* turning/milling insert



Right hand style

QC** turning/milling insert								HC <sup>1</sup> (CVD)		HC <sup>1</sup> (PVD)			HW				
								P	M	K	N	S	H				
ISO	La max	S±0.025	R/C	Øl.C	S1	ød	f	YBC252	YBC251	YBG105	YBG102	YB9320	YBG205	YBG202	YBG302	YD101	YD201
QC11R120-R02	1.5	1.2	0.2	6.35	3.18	2.8	0,02-0,03						●				
QC11L120-R02	1.5	1.2	0.2	6.35	3.18	2.8	0,02-0,03						●				
QC11R125-R02	1.5	1.25	0.2	6.35	3.18	2.8	0,02-0,03						●				
QC11L125-R02	1.5	1.25	0.2	6.35	3.18	2.8	0,02-0,03						●				
QC11R145-R02	1.5	1.45	0.2	6.35	3.18	2.8	0,02-0,05						●				
QC11L145-R02	1.5	1.45	0.2	6.35	3.18	2.8	0,02-0,05						●				
QC11R150-R02	1.5	1.5	0.2	6.35	3.18	2.8	0,02-0,05						●				
QC11L150-R02	1.5	1.5	0.2	6.35	3.18	2.8	0,02-0,05						●				
QC11R200-R02	2	2	0.2	6.35	3.18	2.8	0,02-0,06						●				
QC11L200-R02	2	2	0.2	6.35	3.18	2.8	0,02-0,06						●				
QC11R225-R02	2	2.25	0.2	6.35	3.18	2.8	0,02-0,06						○				
QC11L225-R02	2	2.25	0.2	6.35	3.18	2.8	0,02-0,06						○				
QC16R075-R01	2	0.75	0.1	9.525	3.18	4.4	0,02-0,03						○				
QC16L075-R01	2	0.75	0.1	9.525	3.18	4.4	0,02-0,03						○				
QC16R080-R01	2	0.8	0.1	9.525	3.18	4.4	0,02-0,03						○				
QC16R095-R01	2	0.95	0.1	9.525	3.18	4.4	0,02-0,03						○				
QC16L095-R01	2	0.95	0.1	9.525	3.18	4.4	0,02-0,03						○				
QC16L100-R01	2	1	0.1	9.525	3.18	4.4	0,02-0,03						○				
QC16R110-R01	2	1.1	0.1	9.525	3.18	4.4	0,02-0,03						○				
QC16L110-R01	2	1.1	0.1	9.525	3.18	4.4	0,02-0,03						● ○				
QC16R115-R04	2	1.15	0.4	9.525	3.18	4.4	0,02-0,03						○				
QC16R120-R01	2	1.2	0.1	9.525	3.18	4.4	0,02-0,03						○				
QC16L120-R01	2	1.2	0.1	9.525	3.18	4.4	0,02-0,03						○				
QC16R125-R02	2	1.25	0.2	9.525	3.18	4.4	0,02-0,03						○				
QC16L125-R02	2	1.25	0.2	9.525	3.18	4.4	0,02-0,03						●				
QC16R130-R02	2	1.3	0.2	9.525	3.18	4.4	0,02-0,06						○				
QC16L130-R02	2	1.3	0.2	9.525	3.18	4.4	0,02-0,06						○				
QC16R140-R02	2	1.4	0.2	9.525	3.18	4.4	0,02-0,06						○				
QC16R145-R02	2	1.45	0.2	9.525	3.18	4.4	0,02-0,06						●				
QC16L145-R02	2	1.45	0.2	9.525	3.18	4.4	0,02-0,06						●				
QC16R150-R02	2	1.5	0.2	9.525	3.18	4.4	0,02-0,06						●				
QC16L150-R02	2	1.5	0.2	9.525	3.18	4.4	0,02-0,06						○				
QC16R160-R02	2	1.6	0.2	9.525	3.18	4.4	0,02-0,06						●				
QC16L160-R02	2	1.6	0.2	9.525	3.18	4.4	0,02-0,06						●				

● Ex stock ○ On demand

HC<sup>1</sup> Coated carbide  
HW Uncoated carbide

System code > A416

Grade selection > A394

Technical info > A501




Cutting data > A456

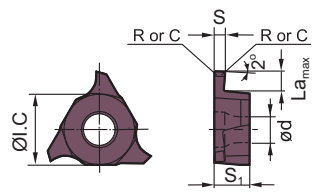


A


















Turning

## Parting inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions



Right hand style

QC** turning/milling insert								HC <sup>1</sup> (CVD)		HC <sup>1</sup> (PVD)			HW		
															
															
															
															

B

Milling

ISO	La max	S±0.025	R/C	Øl.C	S1	Ød	f	YBC252	YBC251	YBG105	YBG102	YB9320	YBG205	YBG202	YBG302	YD101	YD201
QC16R165-R02	2	1.65	0.2	9.525	3.18	4.4	0,02-0,06						○				
QC16L165-R02	2	1.65	0.2	9.525	3.18	4.4	0,02-0,06						○				
QC16R170-R02	2	1.7	0.2	9.525	3.18	4.4	0,02-0,06						○				
QC16L170-R02	2	1.7	0.2	9.525	3.18	4.4	0,02-0,06						○				
QC16R175-R02	2	1.75	0.2	9.525	3.18	4.4	0,02-0,07						●				
QC16L175-R02	2	1.75	0.2	9.525	3.18	4.4	0,02-0,06						○				
QC16R180-R02	2	1.8	0.2	9.525	3.18	4.4	0,02-0,07						○				
QC16R185-R02	2.5	1.85	0.2	9.525	3.18	4.4	0,02-0,07						●				
QC16L185-R02	2.5	1.85	0.2	9.525	3.18	4.4	0,02-0,07						○				
QC16R200-R02	2.5	2	0.2	9.525	3.18	4.4	0,02-0,07						●				
QC16L200-R02	2.5	2	0.2	9.525	3.18	4.4	0,02-0,07						●				
QC16L210-R02	2.5	2.1	0.2	9.525	3.18	4.4	0,02-0,07						○				
QC16L210-R05	2.5	2.1	0.5	9.525	3.18	4.4	0,02-0,07						○				
QC16R220-R02	2.5	2.2	0.2	9.525	3.18	4.4	0,02-0,07						○				
QC16L220-R02	2.5	2.2	0.2	9.525	3.18	4.4	0,02-0,07						○				
QC16R250-R02	2.5	2.5	0.2	9.525	3.18	4.4	0,02-0,08						●	○			
QC16L250-R02	2.5	2.5	0.2	9.525	3.18	4.4	0,02-0,08						●				
QC16R300-R02	3	3	0.2	9.525	3.18	4.4	0,03-0,11						●				
QC16L300-R02	3	3	0.2	9.525	3.18	4.4	0,03-0,11						●				
QC22L100-R02	2	1	0.2	12.7	4.76	5.5	0,02-0,03						○				
QC22R125-R02	2	1.25	0.2	12.7	4.76	5.5	0,02-0,03						●				
QC22L125-R02	2	1.25	0.2	12.7	4.76	5.5	0,02-0,03						○				
QC22R145-R02	2	1.45	0.2	12.7	4.76	5.5	0,02-0,06						○				
QC22L145-R02	2	1.45	0.2	12.7	4.76	5.5	0,02-0,06						○				
QC22R150-R02	3.5	1.5	0.2	12.7	4.76	5.5	0,02-0,06						○				
QC22L150-R02	3.5	1.5	0.2	12.7	4.76	5.5	0,02-0,06						○				
QC22R175-R02	3.5	1.75	0.2	12.7	4.76	5.5	0,02-0,06						●				
QC22L175-R02	3.5	1.75	0.2	12.7	4.76	5.5	0,02-0,06						○				
QC22R185-R02	3.5	1.85	0.2	12.7	4.76	5.5	0,02-0,07						●				
QC22L185-R02	3.5	1.85	0.2	12.7	4.76	5.5	0,02-0,07						○				
QC22R195-R02	3.5	1.95	0.2	12.7	4.76	5.5	0,02-0,07						○				
QC22R200-R02	3.5	2	0.2	12.7	4.76	5.5	0,02-0,07						○				
QC22L200-R02	3.5	2	0.2	12.7	4.76	5.5	0,02-0,07						○				
QC22R225-R02	3.5	2.25	0.2	12.7	4.76	5.5	0,02-0,07						○				

● Ex stock ○ On demand

HC<sup>1</sup> Coated carbide  
HW Uncoated carbide

C

Drilling

D

Technical Information

E

Index




System code > A416

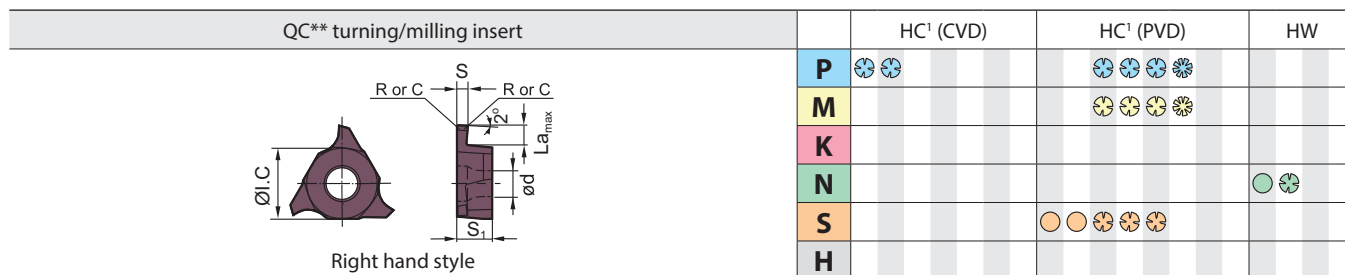
Grade selection > A394























































Technical info > A501

Cutting data > A456

## Parting inserts

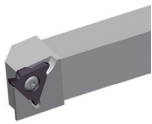
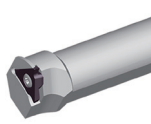
-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions



QC** turning/milling insert								HC <sup>1</sup> (CVD)		HC <sup>1</sup> (PVD)				HW			
								P									
								M									
								K									
								N									
								S									
								H									
ISO	La max	S±0.025	R/C	ØI.C	S1	ød	f	YBC252	YBC251	YBG105	YBG102	YB9320	YBG205	YBG202	YBG302	YD101	YD201
QC22R230-R02	3.5	2.3	0.2	12.7	4.76	5.5	0,02-0,07						●				
QC22L230-R02	3.5	2.3	0.2	12.7	4.76	5.5	0,02-0,07						○				
QC22R250-R03	4	2.5	0.3	12.7	4.76	5.5	0,02-0,08						●				
QC22L250-R03	4	2.5	0.3	12.7	4.76	5.5	0,02-0,08						○				
QC22R265-R03	4	2.65	0.3	12.7	4.76	5.5	0,02-0,08						●				
QC22L265-R03	4	2.65	0.3	12.7	4.76	5.5	0,02-0,08						○				
QC22R280-R03	4	2.8	0.3	12.7	4.76	5.5	0,02-0,08						●				
QC22L280-R03	4	2.8	0.3	12.7	4.76	5.5	0,02-0,08						○				
QC22R300-R03	4	3	0.3	12.7	4.76	5.5	0,03-0,11						○				
QC22L300-R03	4	3	0.3	12.7	4.76	5.5	0,03-0,11						○				
QC22R320-R03	4	3.2	0.3	12.7	4.76	5.5	0,03-0,11						○				
QC22L320-R03	4	3.2	0.3	12.7	4.76	5.5	0,03-0,11						○				
QC22R330-R03	4	3.3	0.3	12.7	4.76	5.5	0,03-0,11						○				
QC22L330-R03	4	3.3	0.3	12.7	4.76	5.5	0,03-0,11						○				
QC22R350-R03	5	3.5	0.3	12.7	4.76	5.5	0,05-0,13						○				
QC22L350-R03	5	3.5	0.3	12.7	4.76	5.5	0,05-0,13						○				
QC22R400-R04	5	4	0.4	12.7	4.76	5.5	0,05-0,14						○				
QC22L400-R04	5	4	0.4	12.7	4.76	5.5	0,05-0,14						●				
QC22R430-R04	5	4.3	0.4	12.7	4.76	5.5	0,05-0,14						○				
QC22L430-R04	5	4.3	0.4	12.7	4.76	5.5	0,05-0,14						○	○			
QC22R450-R04	5	4.5	0.4	12.7	4.76	5.5	0,06-0,18						○				
QC22L450-R04	5	4.5	0.4	12.7	4.76	5.5	0,06-0,18						○				○
QC22R480-R04	5	4.8	0.4	12.7	5.06	5.5	0,06-0,18						○				
QC22L480-R04	5	4.8	0.4	12.7	5.06	5.5	0,08-0,2						○				

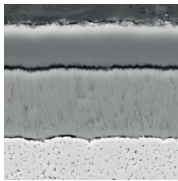
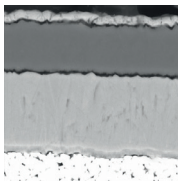
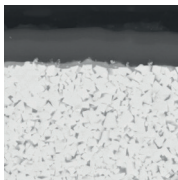
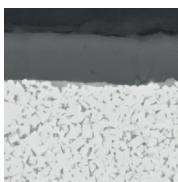
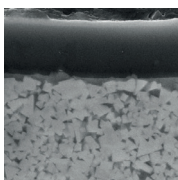
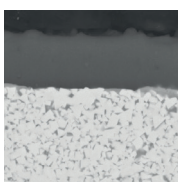
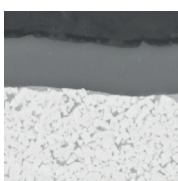
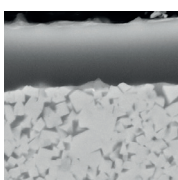
● Ex stock ○ On demand

HC<sup>1</sup> Coated carbide  
HW Uncoated carbide

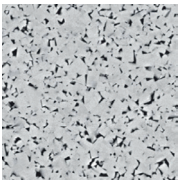
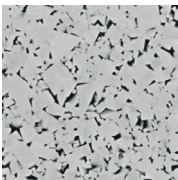
Tool holders	
GQCR/L	S***_QC**R/L
	
A453	A454

A	Turning	Parting & grooving
B	Milling	Parting & grooving
C	Drilling	Parting & grooving
D	Technical Information	Parting & grooving
E	Index	Parting & grooving

## Parting & grooving

Grade	ISO	Micro structure	Grade description
<b>YBC252</b>	P20 - P35		CVD coated P20-P35 carbide grade for medium operation to roughing of steel and casting steel. Optimal performance of wear resistance and toughness for a wide application field.
<b>YBC251</b>	P20 - P35		CVD coated P20-P35 carbide grade for medium operation to roughing of steel and casting steel in lower cutting speed.
<b>YBG105</b>	S05 - S20		PVD multilayer coated S05-S20 carbide substrate for finishing to medium application of super alloy material but also stainless steel. Good wear resistance and thermal stability in a wide application field.
<b>YBG102</b>	S05 - S15		PVD coated S05-S15 carbide substrate for finishing to medium application of super alloy material, stainless steel and aluminum. Good wear resistance in a wide application field.
<b>YB9320</b>	P10 - P30 M10 - M25		PVD multilayer coated P10-P30/M10-M25 carbide substrate for finishing to medium machining of stainless steel, super alloys and steel (grooving/milling). Optimised coating stability for higher wear resistance and thermal stability in a wide range of applications.
<b>YBG205</b>	P10 - P30 M20 - M40 S15-S25		PVD multilayer coated P10-P30/M20-M40/S15-S25 carbide substrate for finishing to medium machining of stainless steel, super alloys and steel (milling). Excellent wear resistance and thermal stability in a wide range of applications.
<b>YBG202</b>	P10 - P30 M10 - M25		PVD coated P10-P30/M10-M25 carbide substrate for finishing to medium application of stainless steel and steel (milling). Good wear resistance in a wide application field.
<b>YBG302</b>	P15 - P30 M25 - M40		PVD coated P15-P30/M25-M40 carbide substrate for medium roughing application of stainless steel and steel (milling). Good wear resistance and toughness.

**Parting & grooving**

Grade	ISO	Micro structure	Grade description
<b>YD101</b>	K05 - K20 N05 - N20		Uncoated K05–K20/N05–N20 carbide substrate for fine to medium application in aluminum and other material.
<b>YD201</b>	K10 - K30 N10 - N30		Uncoated K10–K30/N10–N30 carbide substrate for medium application in aluminum and other material.

**A**

Turning

**B**

Milling

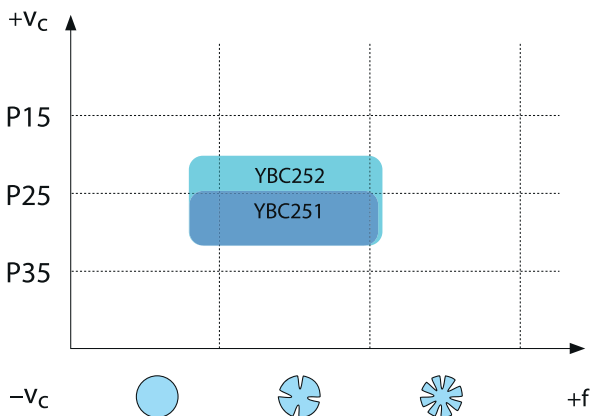
**C**

Drilling

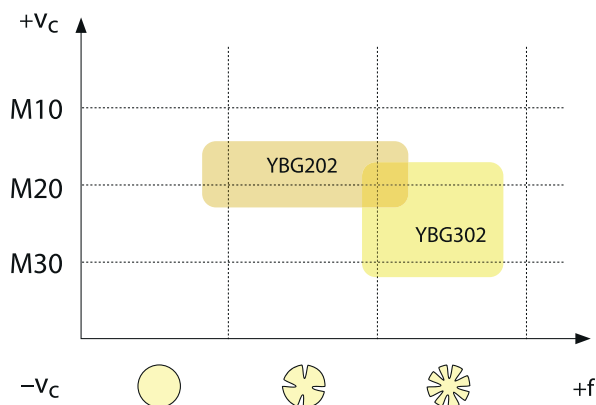
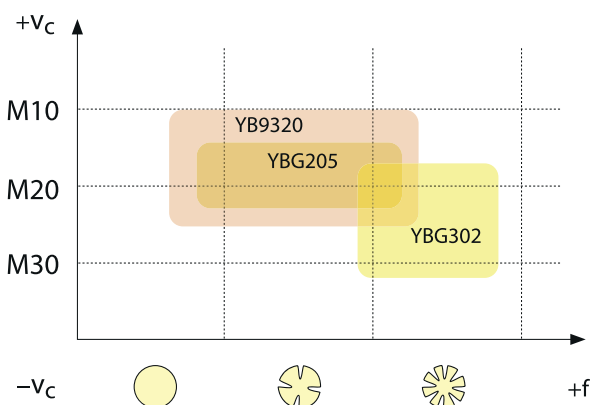
**D**Technical  
Information**E**

Index

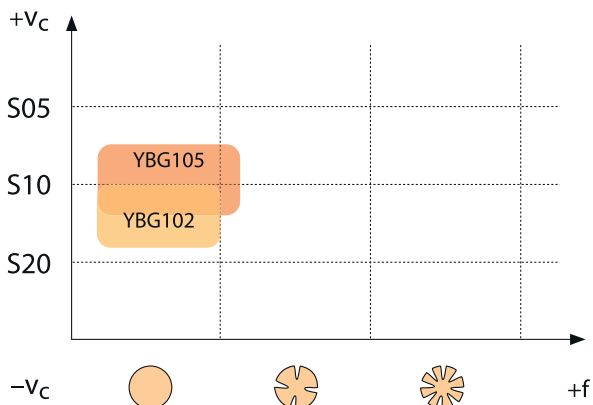
## CVD coated carbide grades for steel



## PVD coated carbide grades for stainless steel



## PVD coated carbide grades for superalloys



A

Turning

B

Milling

C

Drilling

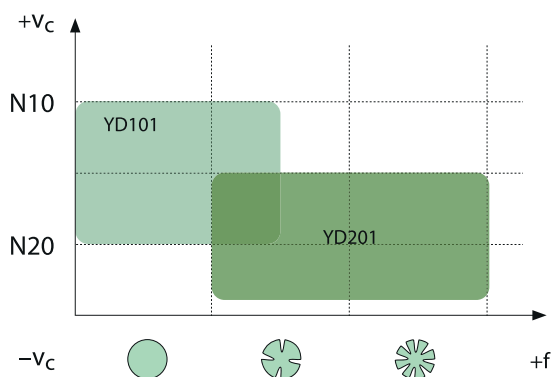
D

Technical Information

E

Index

**Carbide grades for non-ferrous metals**



**A**

Turning

**B**

Milling

**C**

Drilling

**D**

Technical Information

**E**

Index

## Application fields of grades – parting & grooving

	ISO	HC <sup>1</sup> (CVD)	HC <sup>1</sup> (PVD)	HT	HC <sup>2</sup>	Ceramic	HW	CBN	PCD
<b>A</b> Turning	P01								
	P10								
	P20	YBC251 YBC252							
	P30								
	P40								
<b>B</b> Milling	M01								
	M10								
	M20		YBG202 YBG205 YB9320 YBG302						
	M30								
	M40								
<b>C</b> Drilling	K01								
	K10								
	K20								
	K30								
<b>D</b> Technical Information	N01						YD101 YD102		
	N10								
	N20								
	N30								
<b>E</b> Index	S01								
	S10		YBG102 YBG105						
	S20								
	S30								
<b>F</b> Index	H01								
	H10								
	H20								
	H30								

<b>P</b>	Steel
<b>M</b>	Stainless steel
<b>K</b>	Cast iron

<b>N</b>	Non-ferrous metals
<b>S</b>	Heat-resistant alloys
<b>H</b>	Hardened materials

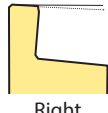
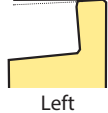
HC <sup>1</sup>	Coated carbide
HT	Uncoated cermet
HC <sup>2</sup>	Coated cermet
HW	Uncoated carbide

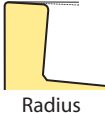



## Triangular, tangential grooving inserts (straight edge)

### QC 22 R 300 – R 03

1 2 3 4 5 6



Series	Cutting edge length [mm]		Cutting direction	
	Code	I.C	Code	Description
	11	6,35	R	 Right
	16	9,525	L	 Left
22	12,70			

Groove width [mm]		Edge shape		Radius/Chamfer [mm]	
Code	Description	Code	Description	Code	Description
050	0,50	R	 Radius	005	0,05
100	1,00	C	 Chamfer	02	0,2
...	...			03	0,3
480	4,80			04	0,4

## Triangular, tangential grooving inserts (round edge)

### QC 22 R 300 – R

1 2 3 4 5

Series	Cutting edge length [mm]		Cutting direction		Groove width [mm]		Round
	Code	I.C	Code	Description	Code	Description	
	11	6,35	R	 Right	050	0,50	
	16	9,525	L	 Left	100	1,00	
22	12,70			...	...		
				480	4,80		

A

Turning

B

Milling

C

Drilling

D

Technical Information

E

Index